

=> FILE HCAPLUS
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FILE COVERS 1907 - 9 Feb 2007 VOL 146 ISS 8
FILE LAST UPDATED: 8 Feb 2007 (20070208/ED)

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'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> D QUE L7
L1 (1)SEA FILE-REGISTRY ABB-ON PIU-ON 12018-19-8/RN
L2 (562)SEA FILE-HCAPLUS ABB-ON PIU-ON L1
L3 (48)SEA FILE-HCAPLUS ABB-ON PIU-ON AMOS T7/AU
L4 (3927)SEA FILE-HCAPLUS ABB-ON PIU-ON RAO V7/AU
L5 (82)SEA FILE-HCAPLUS ABB-ON PIU-ON SIEVERT A7/AU
L6 (75)SEA FILE-HCAPLUS ABB-ON PIU-ON SUBRAMONEY S7/AU
L7 3 SEA FILE-HCAPLUS ABB-ON PIU-ON (L3 OR L4 OR L5 OR L6) AND L2

=> FILE WPIX
FILE 'WPIX' ENTERED AT 09:39:27 ON 09 FEB 2007
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6 FEB 2007 <20070206/UP>
FILE LAST UPDATED: 200709 <200709/DW>
MOST RECENT THOMSON SCIENTIFIC UPDATE:
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> YOU ARE IN THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX <<<
>>> IPC Reform reclassification data for the backfile is being loaded into the database during January 2007.
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http://www.stn-international.de/training/center/patents/stn_guide.pdf
FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
<http://scientific.thomson.com/support/patents/coverage/latestupdates/>

PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE
http://www.stn-international.de/stndatabases/details/ipc_reform.html and
<http://scientific.thomson.com/media/scpdf/ipcidwpi.pdf>

>>> FOR DETAILS ON THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX
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http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<

>>> New and revised Manual Codes went live in Derwent World Patents Index
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RPI, please go to:
<http://scientific.thomson.com/dwpi-manualcode/revision> <<<

'BI,ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> D QUE L16
L8 (1)SEA FILE-REGISTRY ABB-ON PIU-ON 12018-19-8/RN
L9 SEL PIU-ON L8 1- NAME : 7 TERMS
L10 (30)SEA FILE-WPIX ABB-ON PIU-ON L9
L11 (30)SEA FILE-WPIX ABB-ON PIU-ON L10 OR L8
L12 (5)SEA FILE-WPIX ABB-ON PIU-ON AMOS T7/AU
L13 (471)SEA FILE-WPIX ABB-ON PIU-ON RAO V7/AU
L14 (84)SEA FILE-WPIX ABB-ON PIU-ON SIEVERT A7/AU
L15 (18)SEA FILE-WPIX ABB-ON PIU-ON SUBRAMONEY S7/AU
L16 2 SEA FILE-WPIX ABB-ON PIU-ON (L12 OR L13 OR L14 OR L15) AND
L11

=> DUP REM L16 L7
FILE 'WPIX' ENTERED AT 09:39:45 ON 09 FEB 2007
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PROCESSING COMPLETED FOR L7
PROCESSING COMPLETED FOR L7
3 DUP REM L16 L7 (2 DUPLICATES REMOVED)
L70 ANSWERS '1-2' FROM FILE WPIX
ANSWER '3' FROM FILE HCAPLUS

=> D IALL ABEQ TECH 1-2:D IBIB ED ABS 3

L70 ANSWER 1 OF 3 WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN DUPLICATE
1
ACCESSION NUMBER: 2005-333250 [34] WPIX
DOC. NO. CPI: C2005-103357 [34]
TITLE: Preparation of 1,1,1,3,3-pentafluoropropane and
1,1,1,3,3,3-hexafluoropropane useful as blowing agent and
refrigerant comprises reaction of hydrogen fluoride with
halopropane in presence of fluorination catalyst followed
by hydrogen

DERWENT CLASS: A60; E16; G04; J04; J07; K01
INVENTOR: RAO V M; SIEVERT A C; RAO V
PATENT ASSIGNEE: SIEVERT A
(DUPO-C) DU PONT DE NEMOURS & CO E I
COUNTRY COUNT: 107

PATENT INFORMATION:

MANUAL CODE: K01-A; N03-D01; N03-F
CPI: A08-B04A; E10-H03A3; G04-B01; J04-E01; J07-A08;

TECH

INORGANIC CHEMISTRY - Preferred Components: The ZnCr2O4 contains (atom%): chromium (10-67) and zinc (at least 70). In (C1) and (C3), at least 90 atom% of the chromium is present as chromium oxide. The zinc relative to the total chromium and zinc in (C1) and (C3) is present in an amount of 1-25 atom%. The zinc relative to the total chromium and zinc in (C2) and (C4) is present in an amount of 0.1-25 (preferably 2-10) atom%.

L70 ANSWER 2 OF 3 WPX COPYRIGHT 2007

THE THOMSON CORP ON STN DUPLICATE

ACCESSION NUMBER: 2005-333228 [34] WPX

DOC. NO. CPI: 2005-103545 [34]
TITLE: Chromium containing catalyst composition useful for changing fluorine distribution in halogenated hydrocarbon or incorporating fluorine in saturated or unsaturated hydrocarbon comprises zinc chromite and crystalline alpha-chromium oxide

DERIVENT CLASS: E19; J04

INVENTOR: RAO V N M; SIEVERT A; SIEVERT A

C; SUBRAMONEY S; MALLIKARJUNA V N

PATENT ASSIGNEE: (DUPO-C) DU PONT DE NEMOURS & CO E I; (AMOS-I) AMOS T G; (MALL-I) MALLIKARJUNA V N; (SIEV-I) SIEVERT A C; (SUBR-I) SUBRAMONEY S

COUNTRY COUNT: 107

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2005037431	A1	20050428	(200534)*	EN	31(2)	
EP 1673165	A1	20060628	(200643)	EN		
AU 2004281816	A1	20050428	(200681)	EN		
US 20070004585	A1	20070104	(200703)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005037431	A1	WO 2004-US34446	20041013
AU 2004281816	A1	AU 2004-281816	20041013
EP 1673165	A1	EP 2004-795588	20041013
EP 1673165	A1	WO 2004-US34446	20041013
US 20070004585	A1	US 2003-511353P	20031014
US 20070004585	A1	US 2004-US34446	20041013
US 20070004585	A1	US 2006-572628	20060317

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1673165	A1	WO 2005037431
AU 2004281816	A1	WO 2005037431

PRIORITY APPLN. INFO: US 2003-511353P
INT: PATENT CLASSIF.: B01J0023-00 [I,A]; B01J0023-26 [I,A]; B01J0023-86 [I,A];
IPC ORIGINAL: B01J0023-00 [I,A]; B01J0023-26 [I,A]; B01J0023-86 [I,A];

MANUAL CODE: K01-A; N03-D01; N03-F

CPI: A08-B04A; E10-H03A3; G04-B01; J04-E01; J07-A08;

TECH

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L70 ANSWER 2 OF 3 WPX COPYRIGHT 2007

THE THOMSON CORP ON STN DUPLICATE

ACCESSION NUMBER: 2005-333228 [34] WPX

DOC. NO. CPI: 2005-103545 [34]

TITLE: Chromium containing catalyst composition useful for changing fluorine distribution in halogenated hydrocarbon or incorporating fluorine in saturated or unsaturated hydrocarbon comprises zinc chromite and crystalline alpha-chromium oxide

DERIVENT CLASS: E19; J04

INVENTOR: RAO V N M; SIEVERT A; SIEVERT A

C; SUBRAMONEY S; MALLIKARJUNA V N

PATENT ASSIGNEE: (DUPO-C) DU PONT DE NEMOURS & CO E I; (AMOS-I) AMOS T G; (MALL-I) MALLIKARJUNA V N; (SIEV-I) SIEVERT A C; (SUBR-I) SUBRAMONEY S

COUNTRY COUNT: 107

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2005037431	A1	20050428	(200534)*	EN	31(2)	
EP 1673165	A1	20060628	(200643)	EN		
AU 2004281816	A1	20050428	(200681)	EN		
US 20070004585	A1	20070104	(200703)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005037431	A1	WO 2004-US34446	20041013
AU 2004281816	A1	AU 2004-281816	20041013
EP 1673165	A1	EP 2004-795588	20041013
EP 1673165	A1	WO 2004-US34446	20041013
US 20070004585	A1	US 2003-511353P	20031014
US 20070004585	A1	US 2004-US34446	20041013
US 20070004585	A1	US 2006-572628	20060317

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1673165	A1	WO 2005037431
AU 2004281816	A1	WO 2005037431

PRIORITY APPLN. INFO: US 2003-511353P
INT: PATENT CLASSIF.: B01J0023-00 [I,A]; B01J0023-26 [I,A]; B01J0023-86 [I,A];
IPC ORIGINAL: B01J0023-00 [I,A]; B01J0023-26 [I,A]; B01J0023-86 [I,A];

L42 (171)SEA FILE-HCAPLUS ABB=ON PUJ=ON L40 AND L41
 L43 (141)SEA FILE-HCAPLUS ABB=ON PUJ=ON L40(L)CATAL?/OBI
 L44 (248)SEA FILE-HCAPLUS ABB=ON PUJ=ON L44 AND L41
 L45 (59)SEA FILE-HCAPLUS ABB=ON PUJ=ON L44 AND L41
 L46 (187)SEA FILE-HCAPLUS ABB=ON PUJ=ON L40(L)CAT/RL
 L47 (45)SEA FILE-HCAPLUS ABB=ON PUJ=ON L46 AND L41
 L48 (1)SEA FILE-REGISTRY ABB=ON PUJ=ON HYDROGEN FLUORIDE/CN
 L49 (42332)SEA FILE-REGISTRY ABB=ON PUJ=ON L47 AND L49
 L50 (4)SEA FILE-HCAPLUS ABB=ON PUJ=ON L46 AND L49
 L51 (6)SEA FILE-HCAPLUS ABB=ON PUJ=ON L44 AND L49
 L52 (7)SEA FILE-HCAPLUS ABB=ON PUJ=ON (L42 OR L43) AND L49
 L53 (6)SEA FILE-HCAPLUS ABB=ON PUJ=ON HALOGENATION CATALYSTS+OLD,NT/
 L54 (4236)SEA FILE-HCAPLUS ABB=ON PUJ=ON CT OR FLUORINATION CATALYSTS+OLD,NT/CT
 L55 (7)SEA FILE-HCAPLUS ABB=ON PUJ=ON L40 AND L54
 L56 (7)SEA FILE-HCAPLUS ABB=ON PUJ=ON (L42 OR L43 OR L44 OR L45 OR
 L57 (8)SEA FILE-HCAPLUS ABB=ON PUJ=ON (L46 OR L47) AND L54
 L58 (8)SEA FILE-HCAPLUS ABB=ON PUJ=ON (L50 OR L51 OR L52 OR L53 OR
 L59 (L55 OR L56)

=> FILE WPX
 FILE 'WPX' ENTERED AT 09:40:44 ON 09 FEB 2007
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6 FEB 2007 <20070206/UP>
 200709 <200709/DW>
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<http://scientific.thomson.com/media/acpdf/ipcdwpi.pdf>

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 'BI,ABEX' IS DEFAULT SEARCH FIELD FOR 'WPX' FILE

=> D QUE L69 1)SEA FILE-REGISTRY ABB=ON PUJ=ON 12018-19-8/RN
 L58 (

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FILE COVERS 1907 - 9 Feb 2007 VOL 146 ISS 8
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'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> D QUE L37
 L17 (1)SEA FILE-REGISTRY ABB=ON PUJ=ON 12018-19-8/RN
 L18 (117)SEA FILE-HCAPLUS ABB=ON PUJ=ON L17(L)CAT/RL
 L19 (562)SEA FILE-HCAPLUS ABB=ON PUJ=ON L19(L)PREP/RL
 L20 (112)SEA FILE-HCAPLUS ABB=ON PUJ=ON L19(L)HYDROGEN FLUORIDE/CN
 L21 (1)SEA FILE-REGISTRY ABB=ON PUJ=ON 7664-39-3/CN
 L22 (208)SEA FILE-REGISTRY ABB=ON PUJ=ON L21
 L23 (42332)SEA FILE-HCAPLUS ABB=ON PUJ=ON L22
 L24 (800)SEA FILE-HCAPLUS ABB=ON PUJ=ON L18 AND L23
 L25 (4)SEA FILE-HCAPLUS ABB=ON PUJ=ON L20 AND L23
 L26 (2)SEA FILE-HCAPLUS ABB=ON PUJ=ON (L25 OR L26)
 L27 (4)SEA FILE-HCAPLUS ABB=ON PUJ=ON ((L18 OR L20)) AND L24
 L28 (0)SEA FILE-HCAPLUS ABB=ON PUJ=ON L19 AND CATAL?/OBI
 L29 (191)SEA FILE-HCAPLUS ABB=ON PUJ=ON L29 AND L23
 L30 (4)SEA FILE-HCAPLUS ABB=ON PUJ=ON L29 AND L24
 L31 (0)SEA FILE-HCAPLUS ABB=ON PUJ=ON (L27 OR L30)
 L32 (4)SEA FILE-HCAPLUS ABB=ON PUJ=ON FLUORINATION CATALYSTS/CT
 L33 (1016)SEA FILE-HCAPLUS ABB=ON PUJ=ON L18 AND L33
 L34 (1)SEA FILE-HCAPLUS ABB=ON PUJ=ON L20 AND L33
 L35 (3)SEA FILE-HCAPLUS ABB=ON PUJ=ON (L34 OR L35)
 L36 (4)SEA FILE-HCAPLUS ABB=ON PUJ=ON (L27 OR L28 OR L32 OR L31 OR
 L37 (L36)

=> D QUE L57 48)SEA FILE-REGISTRY ABB=ON PUJ=ON (CR (L) ZN (L) O)/ELS (L)
 L38 (3/ELC.SUB
 L39 (366)SEA FILE-REGISTRY ABB=ON PUJ=ON (CR (L) O)/ELS (L) 2/ELC.SUB
 L40 (775)SEA FILE-HCAPLUS ABB=ON PUJ=ON L38
 L41 (44874)SEA FILE-HCAPLUS ABB=ON PUJ=ON L39

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Serial No.: 10/572,628 Page 9 of 36 STIC STN search 2/9/2007

L59 (1)SEA FILE-REGISTRY ABB-ON PUJ-ON HYDROGEN FLUORIDE/CN
L60 (SEL PUJ-ON L58 1- NAME : 7 TERMS
L61 (30)SEA FILE-WPIX ABB-ON PUJ-ON L60
L62 (30)SEA FILE-WPIX ABB-ON PUJ-ON L61 OR L58
L63 (SEL PUJ-ON L59 1- NAME : 14 TERMS
L64 (14552)SEA FILE-WPIX ABB-ON PUJ-ON L63
L65 (14553)SEA FILE-WPIX ABB-ON PUJ-ON L64 OR L59
L66 (21)SEA FILE-WPIX ABB-ON PUJ-ON L62 AND CATAL7/BI,ABEX
L67 (3)SEA FILE-WPIX ABB-ON PUJ-ON L62 AND L65
L68 (20)SEA FILE-WPIX ABB-ON PUJ-ON L66 AND (PY<=2003 OR AY<=2003 OR
PRY<=2003)
L69 20 SEA FILE-WPIX ABB-ON PUJ-ON (L67 OR L68)

=> S L69 NOT L16
L71 18 L69 NOT L16

=> FILE HCAPJUS
FILE 'HCAPJUS' ENTERED AT 09:41:21 ON 09 FEB 2007
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FILE LAST UPDATED: 8 Feb 2007 (20070208/ED)

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=> S (L37 OR L57) NOT L7
L72 5 (L37 OR L57) NOT L7

=> DUP REM L71 L72
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PROCESSING COMPLETED FOR L71
L73 22 DUP REM L71 L72 (1 DUPLICATE REMOVED)
ANSWERS '1-18' FROM FILE WPIX
ANSWERS '19-22' FROM FILE HCAPJUS

Page 9 of 36

=> D IALL ABQO TECH 1-18;D IBIB ED ABS 19-22

L73 ANSWER 1 OF 22 WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN

DUPLICATE 1 1994-273574 (34) WPIX
ACCESSION NUMBER: C1994-125000 (34)
DOC. NO. CPI: Production of fluoro-aromatic cpds. - by contacting corresp.
TITLE: chloro-aromatic cpd with hydrogen
fluoride in vapour phase in the presence of
zinc-promoted fluorination catalyst

DERIVAT CLASS: C03
INVENTOR: RAMSBOTTOM J G; SCOTT J D
PATENT ASSIGNEE: (ICIL-C) IMPERIAL CHEM IND PLC; (ZENE-C) ZENECA LTD
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
GB 2275924	A	19940914	(199434)*	EN	10[0]	C07C017-20
GB 2275924	B	19961218	(199703)	EN		C07C017-20

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
GB 2275924 A		GB 1994-3524	19940224
GB 2275924 B		GB 1994-3524	19940224

PRIORITY APPLN. INFO: GB 1993-4650 19930308

INT. PATENT CLASSIF.: C07C017-00 [I,C]; C07C017-20 [I,A]

IPC RECLASSIF.:

BASIC ABSTRACT:

GB 2275924 A UPAB: 20050509

Production of fluoroaromatic cpds. having one or more fluorine atoms substituted in the aromatic nucleus comprises contacting a chloroaromatic cpd. with hydrogen fluoride, in the vapour phase and in the presence of a zinc-promoted fluorination catalyst.

USE/ADVANTAGE - The prods. of the above process are useful as intermediates in mfr. of agrochemicals such as herbicides and pesticides. The process does not require diazotisation reactions or formation of fluoroformate esters. - The process is carried out at 300-400 deg.C and 5-15 bar. The amount of hydrogen fluoride is up to 10 moles per mole of starting material. The starting material is diluted with an inert gas. The starting material is especially a chlorobenzene. Unreacted starting materials are recycled. The catalyst is a chromium-containing catalyst. - In an example, a zinc-promoted chromia (zinc chromite) catalyst (10g) containing 8 weight% of zinc was charged to a u-tube reactor and dried for 60 mins. HF was red to the reactor at 60 ml/min. was added prefluorinate the catalyst at 300 deg.C. A nitrogen flow of 100 ml/min. was added to the reactor. The catalyst was prefluorinated for 16 hrs. A monochlorobenzene saturated nitrogen feed (20 ml/min.) was mixed with the HF feed and passed to the reactor. The reaction prods were passed to a 2l batch scrubber containing potassium carbonate. After about one hr. of operation the reactor off-gas was diverted to a sample vessel for collection and analysis. Chlorobenzene conversion was found to be approx. 6.8%. fluorobenzene yield was approx. 4.6%. A minor amount of benzene and traces of dihalobenzenes were discovered in the prod. MANUAL CODE: CPI: C10-H02A; N03-D01; N03-F

L73 ANSWER 2 OF 22 WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN

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ACCESSION NUMBER:

2005-442660 [45] WPJX

DOC. NO. CPI:

CZ005-135537 [45]

DOC. NO. NON-CPI:

NZ005-359568 [45]

TITLE:

syn-gas reactions in ebullated/fluidized bed reactors for producing alcohol products, comprises active inorganic catalytic powder and carbonaceous liquid binder material

DERIVENT CLASS:

A81; H04; J04; P73

INVENTOR:

COMOLLI A G; GANGULI P S

PATENT ASSIGNEE:

(HYDR-N) HYDROCARBON TECHNOLOGIES INC

COUNTRY COUNT:

1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 6906000	B1	20050614	(200545)	* EN	14(5)	B01J021-18

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6906000	B1	US 2001-14955	20011211

PRIORITY APPLN. INFO: US 2001-14955 20011211

INT. PATENT CLASSIF.:

MAIN: B01J021-18
 SECONDARY: B01J023-00; B01J023-48; B01J031-00; B32B015-02

BASIC ABSTRACT:

US 6906000 B1 UPAB: 20051222
 NOVELTY - Stable carbonous catalyst particles comprises active inorganic catalytic powder and carbonaceous liquid binder material that are mixed together, carbonized, and partially oxidized at elevated temperature to form a basic inner porous carbon coating.

DETAILED DESCRIPTION - Stable carbonous catalyst particles comprises active inorganic catalytic powder and carbonaceous liquid binder material that are mixed together, carbonized, and partially oxidized at elevated temperature to form a basic inner porous carbon coating bonding together the inorganic catalytic powder and providing a uniform composition and structure having increased particle strength and surface area. The catalyst particles have total carbon content of 2-25 weight%, 1.0-5.0 pound (lb)/mm crush strength, 50-300 m2/g surface area, and 0.02-0.100 inch diameter particle size.

An INDEPENDENT CLAIM is also included for a method for making stable carbonous catalyst particles containing an inorganic catalytic powder and a porous carbonized binder material comprising providing an inorganic catalytic powder and mixing the powder with carbonaceous liquid binder material having molecular weight of 200-700, and forming uniform powder-liquid mixture having a paste consistency; forming the powder-liquid binder mixture into shaped soft stable catalyst particles having 0.02-0.100 inch diameter; heating and first carbonizing the carbonaceous liquid binder material by heating the shaped soft catalyst particles to 800-1400degreesF temperature in an inert atmosphere for 1-4 hours and converting the carbonaceous liquid binder to a porous graphite form and basic inner carbon coating the catalytic powder in the shaped carbon-coated particles; and partially oxidizing the carbon-coated particles at 700-1000degreesF temperature in a flow of inert gas containing 0.1-5 volume% concentration oxygen atmosphere for 1-4 hours and forming micropores on the graphite surface of the stable carbonous carbon-coated catalyst particles.

USE - For used in, e.g. syn-gas reactions in ebullated/fluidized bed reactors for producing alcohol products and Fischer-Tropsch synthesis liquid products.

ADVANTAGE - The invention provides improved crush strength and attrition resistance.

DESCRIPTION OF DRAWINGS - The figure is a general process flowsheet utilizing downflow fixed bed or upflow ebullated bed type catalytic reactor for catalytic reaction processes, such as for syngas feedstream conversions for producing alcohols and Fischer-Tropsch liquid products.

Resulting feedstream (15)

Combined stream (17)

Catalytic reactor (20)

Effluent stream (21)

Hot phase separator (22)

Distillation section (28)

CPI: A10-E05B; A10-E11; A11-B05; A12-W11K; H04-E04;

H04-E05; H04-F02E; H04-F05; J04-E04

MANUAL CODE:

TECH

INORGANIC CHEMISTRY - Preferred Component: The inorganic catalytic

powder includes zinc chromite, cesium-promoted

zinc chromite, copper-promoted zinc

chromite, and potassium- and manganese-promoted zirconia powder.

ORGANIC CHEMISTRY - Preferred Component: The inorganic catalytic

powder includes zinc chromite, cesium-promoted

zinc chromite, copper-promoted zinc

chromite, and potassium- and manganese-promoted zirconia powder.

POLYMERS - Preferred Component: The carbonaceous liquid binder materials include partially polymerized furfuryl alcohol, furfuryl alcohol resins, polyvinyl acetate, polyvinyl butates, polyvinyl chlorides, coal-derived hydrocarbon liquid, or waxes from Fischer-Tropsch synthesis process. The basic inner carbon coating includes micropores created in the basic carbon coating by carbonization in an inert atmosphere at 800-1400degreesF temperature for 24 hours, and partial oxidation at 700-1000degreesF temperature for 24 hours for creating the micropores in the basic carbon coating. The basic inner carbon-coated catalyst particles have a porous outer secondary carbon-coating layer carbonized and partially oxidized after a second application of carbonaceous liquid binder material.

Preferred Process: The production of carbonous catalyst

particles further includes providing outer carbon coating(s) by applying an outer coating of the carbonaceous liquid binder to the basic shaped inner carbon-coated particles, carbonizing the outer coating of the carbonaceous liquid binder at 800-1400degreesF temperature for 1-4 hours, partially oxidizing the carbon-coated particles to provide the outer porous carbon coating layer, partially oxidizing the basic inner and outer carbon coating layer at 700-1000degreesF temperature for 2-4 hours and forming micropores in the basic and outer carbon coatings, providing a subsequent outer carbon coating on the basic inner carbon-coated particles by further contacting the particles with a carbonaceous liquid binder then carbonizing the outer liquid binder at 800-1400degreesF temperature, and heating and partially oxidizing the carbonous particles and providing an outer porous carbon coating layer on the shaped basic inner carbon-coated particles. The outer coating of the carbonaceous liquid binder is applied to the shaped soft catalyst particles before the first carbonizing step.

Preferred Property: The inorganic catalytic powder has size

smaller than 200-mesh. The carbonaceous liquid binder materials have

molecular weight of 200-700. The catalyst particle crush

strength is 1.44.5 lb/mm. The particles have an extrudate shape and

0.025-0.075 inch diameter.

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L73 ANSWER 4 OF 22 WPIX COPYRIGHT 2007 WPIX

ACCESSION NUMBER:

2003-298069 [29]

DOC. NO. CPI:

C2003-077514 [29]

TITLE:

Hydrotreating process for converting hydrocarbons to olefins and aromatic hydrocarbons involved contacting hydrocarbon fluid with catalyst produced by contacting an acid-leached ZSM-5 zeolite with a phosphorus compound

DERWENT CLASS:

A41; E19; H04

INVENTOR:

YAO J

PATENT ASSIGNEE:

(PHIP-C) PHILLIPS PETROLEUM CO

COUNTRY COUNT:

1

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
US 6417421	B1	20020709 (200329)*	EN	8[0]	C07C003-22

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION DATE
US 6417421 B1	CIP of	US 1998-34051 19980303
US 6417421 B1		US 2000-558126 20000425

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 6417421 B1	CIP of	US 6074975 A

PRIORITY APPL. INFO: US 2000-558126 20000425

US 1998-34051 19980303

INT. PATENT CLASSIF.: B01J0023-06 [N,A]; B01J0023-06 [N,C]; B01J0029-00 [I,C];

IPC RECLASSIF.: B01J0029-40 [I,A]; B01J0037-00 [I,C]; B01J0037-28 [I,A]

BASIC ABSTRACT:

US 6417421 B1 UPAB: 20060119

NOVELTY - A hydrotreating process involves contacting a fluid which comprises a hydrocarbon with a catalyst under predetermined conditions to convert the hydrocarbon to olefins and 6-8C aromatic hydrocarbons. The catalyst is produced by contacting an acid-leached ZSM-5 zeolite with a phosphorus compound.

DETAILED DESCRIPTION - A hydrotreating process involves contacting a fluid which comprises a hydrocarbon with a catalyst under predetermined conditions to convert the hydrocarbon to olefins and 6-8C aromatic hydrocarbons. The catalyst is produced by:

(i) contacting an acid-leached ZSM-5 zeolite with a phosphorus compound such as, phosphorus oxide, phosphorus pentoxide, phosphorus oxychloride, phosphoric acid, phosphines, phosphites and/or phosphates, to incorporate the phosphorus compound into the acid leached ZSM-5;

(ii) contacting the first promoted ZSM-5 with a second promoter which is a zinc compound, such as zinc nitrate, zinc titanate, zinc silicate, zinc borate, zinc fluorosilicate, zinc fluorotitanate, zinc molybdate, zinc chromate, zinc tungstate, zinc zirconate, zinc chromite, zinc aluminate, zinc phosphate, zinc tungstate, zinc zirconate, zinc chromite, zinc aluminate, zinc phosphate, zinc phosphate, zinc acetate dihydrate, diethylzinc and/or zinc 2-ethylhexanoate; and

(iii) heat-treating the second promoted ZSM-5.

L73 ANSWER 3 OF 22 WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN

L73 ANSWER 3 OF 22 WPIX COPYRIGHT 2007 WPIX

ACCESSION NUMBER:

2005-755518 [77]

DOC. NO. CPI:

C2003-230437 [77]

TITLE:

Two-stage method for preparing n-methylaniline

DERWENT CLASS:

E14; J04

INVENTOR:

BELYAKOV N G; GORBUNOV B N; KOSYMINA G V; MERKIN A A;

PATENT ASSIGNEE:

NIZOLAEV YU T; SHARKINA V I; SOBOLEVSKII V S; UTROBIN A N

COUNTRY COUNT:

1

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
RU 2263107	C2	20051027 (200577)*	RU	[0]	C07C211-48

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION DATE
RU 2263107 C2		RU 2003-131054 20031022

PRIORITY APPL. INFO: RU 2003-131054 20031022

INT. PATENT CLASSIF.: C07C211-48

MAIN: C07C209-26

BASIC ABSTRACT:

RU 2263107 C2 UPAB: 20060125

NOVELTY - Invention relates to the improved method for preparing N-methylaniline from nitrobenzene, methanol and hydrogen in gaseous phase on a copper-containing catalyst comprising zinc and chrome compounds.

DETAILED DESCRIPTION - The process is carried for two stages in two in-line connected contact reactors and nitrobenzene and methanol or their mixture are fed into each reactor: nitrobenzene is fed into the first reactor and methanol - into the second reactor using in layers charging the catalyst not exceed 350degreesC and volume is 10-50% of the total volume of catalyst used in this contact reactor. The preferable mole ratio nitrobenzene : methanol : hydrogen = 1:3:15, respectively. The separate feeding of reagents is possible. For example, all nitrobenzene is fed into the first contact reactor and feeding methanol is carried out into the first and the second contact reactors in the mole ratio 1:2 or 2:1, or all nitrobenzene is fed into the first contact reactor and methanol is fed into the second contact reactor in the amount 1.5 mole per a mole of nitrobenzene. As a rule, 50-70% of all nitrobenzene used is fed into the first contact reactor and 30-50% is fed into the second reactor. In both contact reactor a copper-containing catalyst of the following composition is used mainly, weight-%: copper oxide, 37-40; chrome oxide 18-20; zinc oxide, 20, and aluminum oxide, the balance, or in both contact reactors a copper-containing catalyst of the following composition is used, weight-%: copper oxide, 21.4-26.4; chrome oxide, 3.4-5.8; aluminum oxide, 3.3-22.3; binary copper and zinc chromite of empirical formula: ZnxCuCr2O4 wherein x = 0.8-10; y = 0.4-0.9, 54.5-71.9. Usually, aluminum oxide granules impregnated with copper, chrome and zinc salts in the ratio of active components = 2:1:1, respectively, are used in upper part of the first contact reactor.

USE - Organic chemistry, chemical technology.

ADVANTAGE - Improved preparing method. 8 cl., 8 ex

MANUAL CODE: E10-B04A1; J04-E01

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The acid-leached ZSM-5 has been previously suspended in an acid solution in amount 0.01-700 grams per liter. The solution has an initial pH lower than 6 and is subjected to a treatment at 70-120 degrees C for 30 minutes to 20 hours under 1 atmosphere pressure.

USE - Converting hydrocarbons to olefins and 6-8C aromatic hydrocarbons.

ADVANTAGE - The catalyst composition enhances the production of olefins and benzene, toluene and xylene (BTX). It provides an increased total weight percent of ethylene, propylene and 6-8C aromatic hydrocarbons compared to (i) a catalyst comprising ZSM-5 and only P, (ii) a catalyst comprising ZSM-5 and only Zn or (iii) a catalyst comprising ZSM-5 and Zn-P prepared by adding Zn then P.

MANUAL CODE: H04-FO2A; N06-B; N07-C

TECH

CHEMICAL ENGINEERING - Preferred Materials: The fluid can be gasoline from catalytic oil cracking processes, pyrolysis gasoline from thermal cracking of saturated hydrocarbons, naphthas, gas oils and/or reformates, preferably naphtha. The ZSM-5 is washed, dried and calcined after the treatment.

Preferred Process: The condition comprises a weight hourly space velocity of the fluid at 0.01-100 g feed/g catalyst/hour, under 0-1000 psig, and at 250-1000 degrees C.

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L73 ANSWER 5 OF 22 WPIX COPYRIGHT 2007

2000-474857 [41] WPIX

1999-214119; 1999-214120; 1999-311583; 1999-326416;

CROSS REFERENCE: 2000-430053; 2001-528507

2000-142223 [41]

DOC. NO. CPI: Preparation of catalyst composition e.g. for polymers, by combining ZSM-5 zeolite, clay, and zinc compound, steaming, contacting with phosphorous compound and calcining

A41; E19; H04

DERWENT CLASS: DRAKE C A; WU A; YAO J

INVENTOR: (PHIP-C) PHILLIPS PETROLEUM CO

PATENT ASSIGNEE: 1

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	LA	PG	MAIN IPC
US 6083865	A	20000704 (200041)* EN 9[0]			B01J029-06

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6083865	A	US 1997-890540	19970709
US 6083865	A	US 1997-919987	19970828
US 6083865	A	US 1998-172642	19981014

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 6083865	A	US 5883033 A
US 6083865	A	US 5898089 A

PRIORITY APPLN. INFO: US 1998-172642 19981014

US 1997-890540 19970709

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US 1997-919987 19970828

INT. PATENT CLASSIF.: B01J0029-00 [1,C]; B01J0029-06 [1,A]; B01J0029-40 [1,A]; C10G0035-00 [1,C]; C10G0035-095 [1,A]; C10G0045-58 [1,C]; C10G0045-64 [1,A]; C10G0045-68 [1,A]; C10G0047-00 [1,C]; C10G0047-16 [1,A]

BASIC ABSTRACT:

US 6083865 A UPAB: 20060116

NOVELTY - Process for converting hydrocarbons to more valuable olefins and BTX and for reducing coke deposition.

DETAILED DESCRIPTION - The process comprises: (1) combining a ZSM-5 zeolite, a clay, and a zinc compound under a condition sufficient to produce a clay-bound zeolite to produce a modified zeolite; (2) steaming the clay-bound zeolite with a phosphorus compound under a condition sufficient to incorporate the phosphorus compound into the modified zeolite to produce a Zn- and P-containing zeolite; and (3) calcining the Zn- and P-containing zeolite to produce a zeolite, where the zeolite is selected from zinc titanate, zinc silicate, zinc borate, zinc fluorotitanate, zinc molybdate, zinc chromate, zinc tungstate, zinc zirconate, zinc chromite, zinc aluminate, zinc phosphates, zinc acetate dehydrate, diethylzinc, zinc 2-ethylhexanoate, and combinations of two or more of these, and the phosphorus compound is selected from phosphorus pentoxides, phosphorus oxychloride, phosphoric acid, phosphines, phosphites, phosphates, and combinations of two or more of these.

An INDEPENDENT CLAIM is also included for the zeolite composition as used above.

USE - Used in petrochemical industry for use as feedstocks for producing organic compounds and olefins.

ADVANTAGE - The catalyst enhances the ratio of produced olefins to benzene, toluene and xylene (BTX), and also suppresses the deposition of coke during a hydrocracking process.

MANUAL CODE: E31-K07; E35-C; E35-K04; H04-E; H04-F02E; N01-D02; N03-B02; N03-F; N04-B; N05-E01; N06-B

TECH

ORGANIC CHEMISTRY - Preferred Amounts: The weight ratio of clay to zeolite is 1:7 - 5:1 and the weight ratio of promoter to zeolite is 0.04:1 - 0.5:1.

The zinc compound is zinc silicate and the phosphorus compound is triethyl phosphate.

The composition comprises zinc silicate and triethyl phosphate, the weight ratio of clay to zeolite being 15 - 1:20 to 20:1 and the weight ratio of promoter to zeolite being 0.01:1 to 1:1.

The weight ratio of clay to zeolite is 1:7 - 5:1 and the weight ratio of promoter to zeolite is 0.04:1 - 0.5:1.

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L73 ANSWER 6 OF 22 WPIX COPYRIGHT 2007

2000-422401 [36] WPIX

ACCESSION NUMBER: C2000-127672 [36]

DOC. NO. CPI: Process for preparing a ZSM-5 based catalyst for the conversion of hydrocarbons to aromatics such as toluene, xylenes, etc.,

A41; E14; E17; H04

DERWENT CLASS: DRAKE C A; YAO J

INVENTOR: (PHIP-C) PHILLIPS PETROLEUM CO

PATENT ASSIGNEE: 1

COUNTRY COUNT: 1

PATENT INFORMATION:

WO 9936591 A 19990722 (199939)* EN 25(0) C25C003-12
 AU 9917795 A 19990802 (199954) EN C25C003-12
 NO 2000003704 A 20000719 (200054) EN C25C003-12
 EP 1049815 A 20001108 (200062) EN B01D059-40
 AU 747906 B 20020530 (200247) EN C25C003-12
 US 6425992 B1 20020730 (200254) EN
 EP 1049815 B1 20030409 (200325) EN
 DE 69906697 E 20030515 (200340) DE

Serial No.: 10/572,628 Page 17 of 36 STIC STN search 2/9/2007
 PATENT NO. KIND DATE WEEK LA PG MAIN IPC
 US 6074975 A 20000613 (200036)* EN 12(0) B01J029-04

APPLICATION DETAILS:

PATENT NO. KIND APPLICATION DATE
 US 6074975 A US 1998-34051 19980303

PRIORITY APPL. INFO: US 1998-34051 19980303

INT. PATENT CLASSIF.: B01J0023-06 [N,A]; B01J0029-00 [I,C]; B01J0037-28 [I,A]
 IPC RECLASSIF.: B01J0029-40 [I,A]; B01J0037-00 [I,C]; B01J0037-28 [I,A]

BASIC ABSTRACT:

US 6074975 A UPAB: 20060116
 NOVELTY - Process for making a novel ZSM-5 based hydrocarbon conversion catalyst is new.
 DETAILED DESCRIPTION - A process for making the composition comprises:
 (a) contacting an acid-leached ZSM-5 with a phosphorus-based promoter selected from phosphorus oxide, phosphorus pentoxides, phosphorus oxychloride, phosphoric acid, phosphines, phosphates and/or phosphates
 (b) contacting the promoted ZSM-5 with a second zinc-based promoter selected from zinc nitrate, zinc titanate, zinc silicate, zinc borate, zinc fluorosilicate, zinc fluorotitanate, zinc molybdate, zinc chromate, zinc tungstate, zinc zirconate, zinc chromite, zinc aluminate, zinc phosphate, zinc acetate dihydrate, diethylzinc and/or zinc 2-ethylhexanoate; and
 (c) heat-treating the second promoted ZSM-5 to give the desired composition.
 The concentration of the ZSM-5 solution is 0.01-700 g/l with an initial pH of 6 or lower, with the solution initially being subjected to a temperature of 70-120degreesC for 30 minutes to 20 hours at atmospheric pressure.
 USE - For converting a hydrocarbons to a 6-8C aromatics and an olefins.
 ADVANTAGE - The catalyst is efficient at converting hydrocarbons to more valuable olefins and BTX (benzene, toluene and xylenes).
 CPT: A01-D13; E05-G02; E05-G03B; E05-G08; E05-G09B;
 E05-G09C; E05-L03C; E05-L03D; E10-J02B3; E10-J02C3;
 E31-C; E31-K07; E31-Q07; E35; E35-C; H04-E01; H04-F02E

TECH INORGANIC CHEMISTRY - Preferred Process: The ZSM-5 was washed, dried, and calcined after the treatment.
 L73 ANSWER 7 OF 22 WPX COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1999-468994 [39] WPX
 CROSS REFERENCE: 1999-430631; 1999-430632; 1999-430633; 2000-292495;
 2000-292496; 2000-292497; 2000-292498; 2000-292499;
 2000-292500; 2000-466014; 2002-487894
 DOC. NO. CPT: C1999-137579 [39]
 DOC. NO. NON-CPT: N1999-350200 [39]
 TITLE: Metal-based, high temperature-resistant anode for aluminum production cells
 A32; A85; X28; X25
 DERWENT CLASS: DE NOVA V
 INVENTOR: (MOLT-N) MOLTTECH INVENT SA
 PATENT ASSIGNEE: 51
 COUNTRY COUNT: 51
 PATENT INFORMATION:

APPLICATION DETAILS:

PATENT NO. KIND APPLICATION DATE
 WO 9936591 A1 1999-IB79 19990119
 AU 9917795 A 1999-17795 19990119
 AU 9917795 A 1999-17795 19990119
 DE 69906697 E 1999-69906697 19990119
 EP 1999-300107 19990119
 EP 1999-300107 19990119
 EP 1999-300107 19990119
 WO 1999-IB79 19990119
 WO 1999-IB79 19990119
 WO 1999-IB79 19990119
 WO 1999-IB79 19990119
 WO 1999-IB79 19990119
 US 2000-616333 20000715
 NO 2000-3704 20000719

FILING DETAILS:

PATENT NO. KIND PATENT NO.
 WO 9936591 A1 Previous Publ AU 9917795 A
 AU 747906 B Based on EP 1049815 A
 DE 69906697 E Based on WO 9936591 A
 AU 9917795 A Based on WO 9936591 A
 EP 1049815 A1 Based on WO 9936591 A
 AU 747906 B Based on WO 9936591 A
 EP 1049815 B1 Based on WO 9936591 A
 DE 69906697 E Based on WO 9936591 A

PRIORITY APPL. INFO: US 1998-126206 19980730

WO 1998-126359 19980730
 US 1998-126359 19980730
 WO 1999-IB79 19990119
 US 2000-616333 20000715

INT. PATENT CLASSIF.:

MAIN: C25C; C25C003-12

IPC RECLASSIF.: C25C0003-00 [I,C]; C25C0003-12 [I,A]; C25C0007-00 [I,C]; C25C0007-02 [I,A]

BASIC ABSTRACT:

WO 1999036591 A1 UPAB: 20060115
 NOVELTY - A non-carbon, metal-based, high temperature resistant, electrically conductive and electrochemically active anode of a cell for the production of aluminum by the electrolysis of alumina dissolved in a fluoride-containing electrolyte is prepared by application of a polymeric and/or colloidal carrier to a substrate.
 DETAILED DESCRIPTION - The anode has a metal based oxidation-resistant substrate (A) to which an adherent electrochemically active multilayer coating (B) is applied prior to immersion into the electrolyte and startup of electrolysis by connection to the positive current supply.

activity and is easily prepared.

TECH

INORGANIC CHEMISTRY - Preferred Composition: (A) is metal, alloy, an intermetallic compound or a cermet, preferably nickel, copper, cobalt, chromium, molybdenum, tantalum and/or iron as the metal and/or oxide in one or more layers.

(A) has a surface pre-coating or pre-impregnation, preferably of ceria. (B) is an oxide, oxyfluoride, phosphide and/or carbide, preferably containing at least one ferrite or chromite, preferably cobalt, manganese, nickel, magnesium and/or zinc ferrite. The ferrite is doped with at least one oxide consisting of chromium, titanium, tin or zirconium oxide. The ferrite is nickel ferrite, optionally partially substituted with Fe₂O₃.

(B) is a chromite consisting of iron, cobalt, copper, manganese, beryllium, calcium, strontium, barium, magnesium, nickel or zinc chromite.

(B) contains an electro-catalyst for the formation of molecular oxygen from atomic oxygen, consisting of iridium, palladium, platinum, rhodium, ruthenium, silicon, tin or zinc, the lanthanide series, mischmetal or their oxides and/or compounds.

(B) contains one or more dried colloids or polymers consisting of colloidal alumina, silica, yttria, ceria, thorina, zirconia, magnesite, lithia, tin oxide, zinc oxide monoaluminum phosphate or cerium acetate. The colloid or polymer are derived from precursors and reagents which are solutions of at least one salt consisting of a chloride, sulfate, nitrate, chlorate, perchlorate or a metal organic compound, preferably an alkoxide, formate, acetate of aluminum, silicon, yttrium, cerium, thorium, zirconium, magnesium or lithium. Each colloid or polymer precursor or reagent contains a chelating agent such as acetyl acetone or ethyl acetoacetate.

The solutions of metal organic compounds, principally metal alkoxides, are of formula M(OR)_x, where M = a metal or complex cation; R = alkyl, and x = 1-12.

Preferred Method: At least one layer is applied by painting, spraying, dipping, brush, electroplating or rollers. A solution, dispersion, suspension or slurry is applied in very liquid, liquid, thick and/or pasty form.

(A) is pre-coated or pre-impregnated by painting, spraying, dipping or infiltration with reagents and precursors, gels and/or colloids before application of (B), preferably using a solution containing ceria or a ceria precursor. Several liquid containing layers are applied and allowed to dry at least partially in ambient air or assisted by heating before application of the next layer. (A) is coated with a precursor containing at least one constituent which reacts with (A) to form (B) and the constituent(s) are reacted with (A) to form the coating. A solid applied layer is applied onto (A) by plasma spraying, arc spraying, physical vapor deposition, chemical vapor deposition or calendaring rollers.

The anode may be reconditioned by clearing at least worn and/or damaged parts of the active coating from (A) and then reconstituting at least the electrochemically active coating.

Preferred Electrolysis: The electrolyte is cryolite. The cell contains an aluminum wettable cathode and is in a drained configuration on which aluminum is produced and continuously drained. The cell is in a bipolar configuration where the anodes form the anodic side of at least one bipolar electrode and/or a terminal anode. The cell contains means to circulate the electrolyte between the anodes and facing cathodes and/or means to facilitate dissolution of alumina in the electrolyte.

The electrolyte temperature is 750-970 degrees C.

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The coating (B) is obtained from a number of applied layers selected from: (a) a liquid solution, (b) a dispersion in a liquid or a paste, (c) a suspension in a liquid or a paste, and/or (d) a pasty or non-pasty slurry. Heat treatment is optionally carried out between two consecutively applied layers.

At least one layer is formed from a polymeric and/or colloidal carrier. After final heat treatment coating (B) is electrically conductive and has, during operation in the cell, an electrochemically active surface for the oxidation of oxygen ions present at the surface of the anode.

INDEPENDENT CLAIMS are included for:

(i) a method of manufacturing the anode by application of coating (B) onto substrate (A), with optional intermediate heat treatment between applied layers and a final heat treatment;

(ii) a cell for the production of aluminum by electrolysis of alumina dissolved in a fluoride containing electrolyte containing at least one anode; and

(iii) a method for the production of aluminum in the cell containing the anode.

USE - The anode is useful for the electrolysis of alumina, to produce aluminum.

ADVANTAGE - The anode has a long life and high electrochemical activity and is easily prepared.

CPI: A11-B05; A12-E09; M28-B; M28-C01
EPI: X25-R02

Member(0004)

ABEQ NO 1049815 A1 UPAB 20060115

NOVELTY - A non-carbon, metal-based, high temperature resistant, electrically conductive and electrochemically active anode of a cell for the production of aluminum by the electrolysis of alumina dissolved in a fluoride-containing electrolyte is prepared by application of a polymeric and/or colloidal carrier to a substrate.

DETAILED DESCRIPTION - The anode has a metal based oxidation-resistant substrate (A) to which an adherent electrochemically active multilayer coating (B) is applied prior to immersion into the electrolyte and startup of electrolysis by connection to the positive current supply.

The coating (B) is obtained from a number of applied layers selected from: (a) a liquid solution, (b) a dispersion in a liquid or a paste, (c) a suspension in a liquid or a paste, and/or (d) a pasty or non-pasty slurry.

Heat treatment is optionally carried out between two consecutively applied layers.

At least one layer is formed from a polymeric and/or colloidal carrier. After final heat treatment coating (B) is electrically conductive and has, during operation in the cell, an electrochemically active surface for the oxidation of oxygen ions present at the surface of the anode.

INDEPENDENT CLAIMS are included for:

(i) a method of manufacturing the anode by application of coating (B) onto substrate (A), with optional intermediate heat treatment between applied layers and a final heat treatment;

(ii) a cell for the production of aluminum by electrolysis of alumina dissolved in a fluoride containing electrolyte containing at least one anode; and

(iii) a method for the production of aluminum in the cell containing the anode.

USE - The anode is useful for the electrolysis of alumina, to produce aluminum. The anode has a long life and high electrochemical

Serial No.10/572,628 Page 22 of 36 STIC STN search 2/9/2007
 catalyst of methanol synthesis with atomic ratio Zn/(Zn + Cr) = 0.6-0.8, containing 10-50 wt.% of zeolite component. To improve results, zeolite component consists of crystalline aluminosilicate, having silica/alumina ratio 25-150, and contains 0.2-0.5 wt.% of sodium oxide and 0.1-5 wt.% of oxides of rare earth elements, and catalyst is activated in reducing medium at temperature not higher than 400 deg.C.
 USE - Used in production of high-octane components of engine fuels with low content of aromatic hydrocarbons by catalytic conversion of synthesis gas.
 ADVANTAGE - The method increases productivity and yield of isoparaffins.

conversion of synthesis gas.
 ADVANTAGE - The method increases productivity and yield of isoparaffins.

L73 ANSWER 9 OF 22 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 1997-505175 [47] WPIX
 ACCESSION NUMBER:
 C1997-160867 [47]
 DOC. NO. CPI:
 TITLE:

DERIVENT CLASS:
 INVENTOR: FELD M; KLEMISS W
 PATENT ASSIGNEE: (DEGS-C) DEGUSSA-HUELS AG; (CHEM-C) HUELS AG
 COUNTRY COUNT: 5

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 794166	A2	19970910	(199747)*	DE	410	C07C029-141
DE 19608852	A1	19970911	(199747)	DE	9742	C07C031-133
JP 09328445	A	19971222	(199810)	JA	410	C07C031-133
EP 794166	A3	19971229	(199818)	EN		C07C029-141
US 5767326	A	19980616	(199831)	EN		C07C027-10
EP 794166	B1	19991208	(200002)	DE		C07C029-141
DE 59700811	G	20000113	(200010)	DE		C07C029-141
JP 3522484	B2	20040426	(200428)	JA	4	C07C029-141

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 794166 A2	DE 19608852 A1	EP 1997-100500	19970115
DE 19608852 A1	DE 59700811 G	DE 1996-19608852	19960307
DE 59700811 G	EP 794166 A3	DE 1997-59700811	19970115
EP 794166 A3	EP 794166 B1	EP 1997-100500	19970115
EP 794166 B1	DE 59700811 G	EP 1997-100500	19970115
DE 59700811 G	JP 09328445 A	JP 1997-46819	19970303
JP 09328445 A	JP 3522484 B2	JP 1997-46819	19970303
JP 3522484 B2	US 5767326 A	US 1997-813593	19970307

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 59700811 G	Based on	EP 794166 A
JP 3522484 B2	Previous Publ	JP 09328445 A

PRIORITY APPLN. INFO: DE 1996-19608852 19960307
 INT. PATENT CLASSIF.:

Serial No.10/572,628 Page 21 of 36 STIC STN search 2/9/2007
 1997-402501 [37] WPIX
 ACCESSION NUMBER:
 C1997-129838 [37]
 DOC. NO. CPI:
 DOC. NO. NON-CPI:
 TITLE:

Production of high octane gasoline components from synthesis gas - by catalytic conversion using catalyst comprising pentasil-type zeolite and zinc-chromium catalyst of methanol synthesis
 E14; E17; H04; J04; P84; S06
 FUREN E L; GOROKHOVSKY V A; KASCHITSKY J A; KRUPNIK L I;
 INVENTOR: FUREN E L; GOROKHOVSKY V A; ROSTANIN N N; SEDYCH A D
 OKOROKOV V A; RODIONOV I I; (GORO-I) GOROKHOVSKY V A
 (FALK-I) FALKEVICH G S;
 COUNTRY COUNT: 19

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 9728108	A1	19970807	(199737)*	RU	11(0)	C07C001-04
RU 2100332	C1	19971227	(199833)	RU	6(0)	C07C001-04

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9728108 A1	WO 1997-RU16	19970131	
RU 2100332 C1	RU 1996-102071	19960201	

PRIORITY APPLN. INFO: RU 1996-102071 19960201
 INT. PATENT CLASSIF.: C07C0001-00 [I,C]; C07C0001-04 [I,A]; C10G0002-00 [I,A];
 IPC RECLASSIF.: C10G0002-00 [I,C]

BASIC ABSTRACT:

WO 1997028108 A1 UPAB: 20050703
 The method comprises conversion of synthesis gas (H₂/CO = 1-12) to mixture of 1-11C hydrocarbons, in which 5C fraction is enriched with isoparaffin hydrocarbons, in particular with isopentane and isohexanes. Process is conducted at 330-400° C, pressure 6-15 MPa, and volumetric rate of supply of starting material 50-11000/hour, using bi-component catalyst comprising pentasil-type zeolite and zinc/chromium catalyst of methanol synthesis with atomic ratio Zn/(Zn + Cr) = 0.6-0.8, containing 10-50 weight% of zeolite component. To improve results, zeolite component consists of crystalline aluminosilicate, having silica/alumina ratio 25-150, and contains 0.2-0.5 weight% of sodium oxide and 0.1-5 weight% of oxides of rare earth elements, and catalyst is activated in reducing medium at temperature not higher than 400° C.
 USE - Used in production of high-octane components of engine fuels with low content of aromatic hydrocarbons by catalytic conversion of synthesis gas.
 ADVANTAGE - The method increases productivity and yield of isoparaffins.

MANUAL CODE:
 CFI: E10-J02D3; H04-D; H04-E05; H04-F02D; H04-F02E;
 J04-E01; N03-D01; N03-F; N06-B

Member(0002)
 ABEQ RU 2100332 C1 UPAB 20050703
 The method comprises conversion of synthesis gas (H₂/CO = 1-12) to mixture of 1-11C hydrocarbons, in which 5C fraction is enriched with isoparaffin hydrocarbons, in particular with isopentane and isohexanes. Process is conducted at 330-400° C, pressure 6-15 MPa, and volumetric rate of supply of starting material 50-11000/hour, using bi-component catalyst comprising pentasil-type zeolite and zinc/chromium

MAIN: B01J0023-16 [I,C]; B01J0023-26 [I,A]; B01J0023-76 [I,C];
IPC RECLASSIF.: B01J0023-80 [I,A]; B01J0023-86 [I,A]; C07B0061-00 [I,A];
C07B0061-00 [I,C]; C07C0029-00 [I,C]; C07C0029-141 [I,A];
C07C0031-00 [I,C]; C07C0031-133 [I,A]

BASIC ABSTRACT:

EP 794166 A2 UPAB 20050519
Preparation of hydroxymethylcyclopropane comprises hydrogenation of
formylcyclopropane using copper chromite, zinc chromite and/or copper/zinc as
a catalyst. The temperature is kept at 20-250 °C, and the hydrogen pressure is
10-350 bar.
USE - Hydroxymethylcyclopropane is used as an intermediate for the
preparation of bactericides, fungicides, herbicides and insecticides.
ADVANTAGE - High yields are obtained, even at relatively low
temperatures (when copper chromite is used as a catalyst). Alcohol side products
are not produced in the reaction, allowing easier work-up.

MANUAL CODE: CPI: C10-E04B; N02-D; N03-D01; N03-F

Member(0003)

ABEQ JP 09328445 A UPAB 20050519
Preparation of hydroxymethylcyclopropane comprises hydrogenation of
formylcyclopropane using copper chromite, zinc chromite
and/or copper/zinc as a catalyst. The temperature is kept at
20-250 °C, and the hydrogen pressure is 10-350 bar.

USE - Hydroxymethylcyclopropane is used as an intermediate for the
preparation of bactericides, fungicides, herbicides and insecticides.
ADVANTAGE - High yields are obtained, even at relatively low
temperatures (when copper chromite is used as a catalyst).

Alcohol side products are not produced in the reaction, allowing easier
work-up.

Member(0005)

ABEQ US 5767326 A UPAB 20050519
Preparation of hydroxymethylcyclopropane comprises hydrogenation of
formylcyclopropane using copper chromite, zinc chromite
and/or copper/zinc as a catalyst. The temperature is kept at
20-250 °C, and the hydrogen pressure is 10-350 bar.
USE - Hydroxymethylcyclopropane is used as an intermediate for the
preparation of bactericides, fungicides, herbicides and insecticides.
ADVANTAGE - High yields are obtained, even at relatively low
temperatures (when copper chromite is used as a catalyst).

Alcohol side products are not produced in the reaction, allowing easier
work-up.

Member(0006)

ABEQ EP 794166 B1 UPAB 20050519
Preparation of hydroxymethylcyclopropane comprises hydrogenation of
formylcyclopropane using copper chromite, zinc chromite
and/or copper/zinc as a catalyst. The temperature is kept at
20-250 °C, and the hydrogen pressure is 10-350 bar.

USE - Hydroxymethylcyclopropane is used as an intermediate for the
preparation of bactericides, fungicides, herbicides and insecticides.
ADVANTAGE - High yields are obtained, even at relatively low
temperatures (when copper chromite is used as a catalyst).

Alcohol side products are not produced in the reaction, allowing easier
work-up.

L73 ANSWER 10 OF 22 WPX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1994-130675 [12] WPX
DOC. NO. CPI: C1997-042038 [12]

Catalyst for conversion of carbon monoxide -
contains oxide(s) of copper, aluminum and zinc, and
double copper-zinc chromite

DERIVENT CLASS: E36; J01; J04
INVENTOR: SEREGINA L K; SHARKINA V I; SOBOLEVSKI I V S
PATENT ASSIGNEE: (SHAR-I) SHARKINA V I
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
SU 1078708	A1	19960810 (199712)*	RU 4(0)			B01J023-86

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
SU 1078708 A1		SU 1982-3507952	19821109

PRIORITY APPLN. INFO: SU 1982-3507952 19821109

INT. PATENT CLASSIF.: B01J0023-76 [I,C]; B01J0023-86 [I,A]; C01B0003-00 [N,C];
IPC RECLASSIF.: C01B0003-16 [N,A]

BASIC ABSTRACT:

SU 1078708 A1 UPAB: 20050519

The catalyst is based on oxides of copper, zinc and aluminum, and a
chromium cpd., to improve activity and stability and reduce bulk density of
the catalyst, in the form of double zinc-copper chromite, of empirical formula
ZnxCu_{1-x}Cr2O4 (1), where x is 0.8-1.0 and y is 0.4-0.9, in a ratio of components
(in weight%) of copper oxide 21.4-26.4, zinc oxide 3.38-5.80, aluminum oxide
3.3-22.3 and (1) 52.92-64.5.

USE - The CO conversion catalyst is used in the purificn. of gaseous
mixts. containing toxic admixtures.

ADVANTAGE - The catalyst has improved activity and stability and
reduced bulk density. MANUAL CODE: CPI: E11-Q02; E31-N05B; J01-E02D; J01-

E03F; J04-E04;

N02-D; N03-D01; N03-F

L73 ANSWER 11 OF 22 WPX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1994-125208 [15] WPX
DOC. NO. CPI: C1994-057920 [15]
DOC. NO. NON-CPI: N1994-098132 [15]
Catalyst for butane fuel oxidation - comprises
zinc chromite on alumina carrier and
has improved heat and wear resistance

DERIVENT CLASS:

J04; Q73

INVENTOR: ISMAGILOV Z R; KIRICHENKO O A; TSUKAN M P

PATENT ASSIGNEE: (ASIT-C) AS SIBE CATALYSIS INST; (UYNS-C) UNIV NOVOS

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
SU 1503132	A1	19931230 (199415)*	RU 4(0)			B01J023-06

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
SU 1503132		SU 1992-3507952	19921109

Serial No.: 107/218679-5 UPAB: 20050301
JP 0218679 (I) comprises (I) Reaction of propylene
Preparation of methylpyrazine (III) over zinc-chromite catalyst (IV) and
(II) with equimolar ethylenediamine (III) over zinc-chromite catalyst (IV) and inert
copper-chromite catalyst (V) successively in presence of hydrogen (and inert
gas), and (2) Separating (I) from the reaction mixture (II) by selective absorption
(gas), and (2) Separating (I) prepared in higher yield selectively than before.
ADVANTAGE (I) is prepared in higher yield selectively than before.
(Provisional Patent No. 03-F (16pp) Dwg. No. 0/0) MANUAL CODE:
Provisional Patent No. 03-D; 03-F

PRIORITY APPL. INFO.: B01J0023-06 [I,C]; B01J0023-16 [I,C];
INT. PATENT CLASSIF.: B01J0023-06 [I,A]; B01J0023-06 [I,C]; F230002-30 [I,A]
IPC RECLASSIF.: B01J0023-26 [I,A]; F230002-00 [I,C]; F230002-30 [I,A]

BASIC ABSTRACT:
SU 1503132 A1 UPAB: 20050701
The catalyst consists of Zn chromite (15-25 weight%), on an Al₂O₃ carrier (75-85 weight%), with the latter being in the form of the gamma- and chi-Al₂O₃ types. The carrier (100g) is impregnated with a Zn dichromate solution (calculated as Zn chromite) at room temperature and with mixing for 45-60 minutes. After drying under IR lamps at 110-140 deg.C, the catalyst is fired at 600 deg.C for 4 hours. The heat and wear USE/ADVANTAGE - Is used to catalyze fuel combustion. The heat and wear
CPI: J04-E04; N03-D01; N03-F

WPX COPYRIGHT 2007 WPX
 1990-307867 [35]
 C1990-132860 [21]
 Preparation of methylpyrazine - comprises reaction of
 propylene with ethylene:diamine over zinc-
 chromite catalyst and copper-chromite
 catalyst

	E13	(KANK-N) KANKU-KAGAKU KENKI; (KANK-N) KANKOKU KAGAKU
DERWENT CLASS:	(KANK-N)	KANKU-KAGAKU KENKI; (KANK-N) KANKOKU KAGAKU
PATENT ASSIGNEE:	KENKYUSHO;	(KORE-N) KOREA RES INST CHEM TECH
COUNTRY COUNT:	2	

PATIENT INFORMATION:

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG
JP 02184679	A	19800719 (198035)*	JA	
JP 02184679	B	19801105 (199207)	KO	
KR 9008170	B	19930334 (199334)	JA	0
JP 05032829	B	19930806 (199334)	JA	0

C070241-12

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 1989-194466		JP 1989-194466	19890728
JP 02184679 A		JP 1988-180663	19881231
JP 8208170 B		JP 1989-194466	19890728

FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 02184679 A	Based on	JP 05052829 B

1000-18063 19881231

PRIORITY APPLN. INFO: KR 1988-18063 1986.11.27
 INT. PATENT CLASSIF.:
 C07D241-12 [I,C] B01J0023-26 [I,A]; B01J0023-76 [I,C];
 B01J0023-16 [I,C] C07B0061-00 [I,A]; C07B0061-00 [I,C];
 MAIN:
 B01J0023-86 [I,A]; C07D0241-12 [I,A]
 IPC RECLASSIF.:
 C07D0241-00 [I,C]; C07D0241-12 [I,A]

BASIC ABSTRACT:

Page 25 of 36

Member(0003)
ANEQ JP 93052829 B UPAB 20050501
Preparation of methylpyrazine (I) comprises (1) Reaction of propylene (II) with equimolar ethylenediamine (III) over zinc- chromic catalyst (IV) and copper-chromite catalyst (V) successively in presence of hydrogen (and inert gas), and, (2) separating (I) from the reaction mixt. (VI).
ADVANTAGE - (I) is prepd. in higher yield selectively than before.

THE THOMSON CORP on 5/11/2007

DERWENT CLASS: C03; E15
INVENTOR: NEHRING R; OTTE W
PATENT ASSIGNEE: (CHEN-C) HUELS AG
COUNTRY COUNT: 12

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
DE 3538132	A	19870430 (198718)*	DE	3[0]	
EP 222988	A	19870527 (198721)	DE	4	C07C031-133
JP 62106033	A	19870516 (198725)	JA.		
US 4720597	A	19880119 (198805)	EN.	2	C07C029-132
EP 222988	B	19880817 (198833)	DE		C07C031-133
DE 3660542	G	19880922 (198839)	DE		
ES 2002539	A	19880816 (198927)*	ES		
JP 05058609	B	19930827 (199337)	JA	3	C07C031-133

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 3538132 A		DE 1985-3538132	19851026
DE 3605142 G		DE 1985-3538132	19851026
DE 3660542 A		EP 1986-111694	19860823
EP 222988 A		ES 1986-2748	19861024
ES 2002539 A		JP 1986-252116	19861024
JP 62106033 A		JP 1986-252116	19861024
JP 05058609 B		US 1986-922914	19861024
US 4720597 A			

FTTING DETAILS:

PATENT NO	KIND	PATENT NO
JP 05058609 B	Based on	JP 62106033 A

Page 26 of 36

and pelletizing to form air-stable, non-hydroscopic catalyst for solid bed systems

DERWENT CLASS: E19; E31; J04
INVENTOR: ARTENE G; BANCILA V; BEJENARU G; BLEJOIU S; COJOCARU G;
OPRESCU I; PREDETEANU F
PATENT ASSIGNEE: (CHOR-N) CENT CHIM ORGAN BUCUR; (CHCR-N) COMB CHIMIC
CRAIOVA
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
RO 88984	A	19860331 (198639)*	RO				

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
RO 88984 A		RO 1984-114345	19840423

PRIORITY APPLN. INFO: RO 1984-114345 19840423

INT. PATENT CLASSIF.: B01J0023-16 [I,C]; B01J0023-26 [I,A]; B01J0023-72 [I,A];
IPC RECLASSIF.: B01J0023-72 [I,C]

BASIC ABSTRACT:

RO 88984 A UPAB: 20050425
Cu- or Zn-chromite, activated and stabilised with Ba, Mn, Ca, etc. are shaped by pellet-forming, comprising extrusion with an inorganic binder. USE/ADVANTAGE - Energy consumption is reduced by over 50% and toxicity and corrosiveness are lowered appreciably. Non-hydroscopic catalysts are formed, which are highly stable in air, and useful in hydrogenation, reduction, desulphurising and the dehydrogenation of alcohols in gas-solid fixed bed, as well as gas-liquid solid fixed bed systems.

MANUAL CODE:

CPI: E35-A; E35-C; E35-P; J04-E04; N03-D; N03-F
THE THOMSON CORP on STN

L73 ANSWER 15 OF 22 WPX COPYRIGHT 2007

ACCESSION NUMBER: 1983-23842K [10] WPX

DOC. NO. CPI: C1983-023309 [21]

TITLE: Ethylene glycol production by oxalic ester hydrogenation using a catalyst containing copper and chromium, in as solvent e.g. a lower alcohol

DERWENT CLASS:

E17

INVENTOR: KOBAYASHI M; MASAI H; MIYAMORI H; SHIMOMURA T; UNO H

PATENT ASSIGNEE: (MITN-C) MITSUBISHI GAS CHEM CO INC

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
JP 58015930	A	19830129 (198310)*	JA	7			

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 58015930 A		JP 1981-114094	19810721

INT. PATENT CLASSIF.:

Page 28 of 36

PRIORITY APPLN. INFO: DE 1985-3538132 19851026
ES 1986-2748 19861024

INT. PATENT CLASSIF.:

MAIN: C07C031-133
IPC RECLASSIF.: B01J0023-00 [I,A]; B01J0023-16 [I,C]; B01J0023-26 [I,A]; C07B0061-00 [I,C];
C07C0029-00 [I,C]
C07C029-13
C07C029-13
(I,A); C07C0029-149 [I,A]; C07C0031-00 [I,C]
(I,A)

MAIN/SEC.:

C07C0029-136
; C07C031-13
; C07C0031-133
BASIC ABSTRACT:

DE 3538132 A UPAB: 20050424

Production of cyclopropyl methanol (I) is effected by hydrogenating a cyclopropane carboxylate ester (II) in the presence of a Zn chromite catalyst in a slurry- or trickle-phase reactor, at an H₂ pressure of 200-320 bar and a temperature of 200-350 deg.C.

Prof. the reaction occurs at 240-380 deg.C and 240-300 bar using a 1-8C alkyl cyclopropane- carboxylate. The catalyst (e.g. BASF S5-10) contains 40-80% ZnO and 20-40% Cr₂O₃. The process is operated batchwise in a slurry-phase reactor (e.g. autoclave) or continuously in a trickle-phase (e.g. fixed-bed) reactor with co- or countercurrent H₂ flow.

USE/ADVANTAGE - (I) is an intermediate for bactericides, fungicides, herbicides and insecticides. Process gives quantitative yields without using expensive or difficult-to-handle additives. MANUAL CODE: CPI: C10-E04B; E10-E04F; N03-D; N03-F

Member(0004)

ABEQ US 4720597 A UPAB 20050424

Selective prodn. of hydroxymethylcyclopropane (I) comprises hydrogenation of a cyclopropanecarboxylic acid ester (II) in liq. phase in the presence of a catalytic amt. of zinc chromite at elevated temp. (pref. 200-350 (200-300) (240-300) deg. C.) and H₂ pressure of 200-320 (240-300) br. Pref., cpds. (II) are esters of 1-10C (esp. 1-8C) alcohols. The methyl ester, n-butyl ester and 2-ethylhexyl ester of cyclopropane carboxylic acid being pref.

USE/ADVANTAGE - Qpd. (I) is obt'd. in very high yield. Qpd. (I) is an intermediate for bactericides, fungicides, herbicides and insecticides.

Member(0008)

ABEQ JP 93058609 B UPAB 20050424

Prodn. of cyclopropyl methanol (I) is effected by hydrogenating a cyclopropane carboxylate ester (II) in the presence of a Zn chromite catalyst in a slurry- or trickle-phase reactor, at an H₂ pressure of 200-320 bar and a temp. of 200-350 deg.C.

Prof. the reaction occurs at 240-380 deg.C and 240-300 bar using 1-8C alkyl cyclopropane- carboxylate. The catalyst (e.g. BASF S5-10) contains 40-80% ZnO and 20-40% Cr₂O₃. The process is operated batchwise in a slurry-phase reactor (e.g. autoclave) or continuously in a trickle-phase (e.g. fixed-bed) reactor with co- or countercurrent H₂ flow.

USE/ADVANTAGE - (I) is an intermediate for bactericides, fungicides, herbicides and insecticides. Process gives quantitative yields without using expensive or difficult-to-handle additives. (J62106033-A)

L73 ANSWER 14 OF 22 WPX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 1986-256691 [39] WPX

DOC. NO. CPI: C1986-111166 [21]

TITLE: Shaping activated copper- or zinc chromite - by extrusion with inorganic binder

Page 27 of 36

PATENT INFORMATION:

PATENT NO. KIND DATE WEEK LA PG MAIN IPC
 US 4086289 A 19780425 (197824)* EN
 US 4086289 A 19780425 (197824)* EN

APPLICATION DETAILS:

PATENT NO. KIND APPLICATION DATE
 US 4086289 A 1977-813158 19770705

INT. PATENT CLASSIF.: C07C0002-00 (I,C); C07C0002-86 (I,A)

IPC RECLASSIF.:

BASIC ABSTRACT:

US 4086289 A UPAB: 20050417
 The methylation of toluene with H₂ and CO and/or CO₂ to give a mixture of xylenes, uses as catalyst Zn chromite mixed with an alkali metal exchanged molecular sieve containing a stoichiometric excess of an alkali metal carbonate. Pref. the molecular sieve is a K exchanged zeolite 13X.
 The xylenes mixture contains a low proportion of m-isomer and ethyl benzene and a relatively high proportion of p-xylene. MANUAL CODE: CPI:

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

E10-J02B3; N03-D; N03-F

BASIC ABSTRACT:

JP 58015930 A UPAB: 20050421
 The preparation of ethylene glycol, an oxalic ester of formula ROC(O)C(O)OR' pref. di(methyl oxalate, di(n-propyl oxalate or di(n-butyl oxalate, is hydrogenated in a liquid phase in the presence of a hydrogenating catalyst containing copper and chromium as metal components, e.g. copper chromite, copper zinc chromite, copper barium chromite, copper nickel chromite, or copper cobalt chromite is claimed. As reaction solvents, one or more of (1) 4-20C saturated aliphatic alcohols, (2) 4-20C alcohols containing per molecular at least 1 oxygen in addition to the OH one, the oxygen atoms being bonded together via 2 or more carbon atoms, (3) ethers of formula R'O(CH₂CH₂O)_n(R₃) and (4) cyclic ethers is used. Solvent pref. contains up to 0.1 w/v% (partic. up to 0.05 w/v%) of water and is pref. used in an amount 1-30 (2-5) times weight of oxalic ester.
 (R and R' are H, CH₃ or C₂H₅, n is 1-10). Ethylene glycol can be produced in high yields and at high selectivity under a relatively low pressure of up to 200 atm. The catalyst is pref. used in an amount of 1-80 (2-40) pts. weight, per 100 pts. weight of oxalic ester. The reaction is pref. conducted at 180-350 (200-300) deg C, under a pressure of at least 80 (100-300) kg/sq.cm.G. MANUAL CODE: CPI: E10-E04B; N02-B; N02-C; N03-D; N03-F

L73 ANSWER 16 OF 22 WPX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 1980-003245 [20] WPX

TITLE: Catalyst for fatty acid hydrogenation to fatty

alcohol - contains copper chromite, zinc

chromite, copper oxide and zinc oxide mixture

E17: J04

E17: J04 INST RAFINAR PETROC

PATENT CLASS: (RAT-N)

PATENT ASSIGNEE: 1

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE WEEK LA PG MAIN IPC

RO 67908 A 19791130 (198020)* RO

APPLICATION DETAILS:

PATENT NO. KIND APPLICATION DATE

RO 67908 A 1979-81499 19750226

INT. PATENT CLASSIF.:

MAIN/SEC.:

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L73 ANSWER 17 OF 22 WPX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 1978-43965A [24] WPX

TITLE: Xylene mixture production by methylation of toluene - using

zinc chromite and alkali metal

exchanged molecular sieve, giving low amount of meta-isomer

E14

E14 SEITZER W H

PATENT ASSIGNEE: (SUNG-C) SUN OIL CO PENNSYLVANIA

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE WEEK LA PG MAIN IPC

RO 67908 A 19791130 (198020)* RO

APPLICATION DETAILS:

PATENT NO. KIND APPLICATION DATE

RO 67908 A 1979-81499 19750226

INT. PATENT CLASSIF.:

MAIN/SEC.:

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L73 ANSWER 17 OF 22 WPX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 1978-43965A [24] WPX

TITLE: Xylene mixture production by methylation of toluene - using

zinc chromite and alkali metal

exchanged molecular sieve, giving low amount of meta-isomer

E14

E14 SEITZER W H

PATENT ASSIGNEE: (SUNG-C) SUN OIL CO PENNSYLVANIA

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE WEEK LA PG MAIN IPC

RO 67908 A 19791130 (198020)* RO

APPLICATION DETAILS:

PATENT NO. KIND APPLICATION DATE

RO 67908 A 1979-81499 19750226

INT. PATENT CLASSIF.:

MAIN/SEC.:

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L73 ANSWER 17 OF 22 WPX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 1978-43965A [24] WPX

TITLE: Xylene mixture production by methylation of toluene - using

zinc chromite and alkali metal

exchanged molecular sieve, giving low amount of meta-isomer

E14

E14 SEITZER W H

PATENT ASSIGNEE: (SUNG-C) SUN OIL CO PENNSYLVANIA

COUNTRY COUNT: 1

solution of 504 g. (NH₄)₂Cr₂O₇ and 270 g. 28.5% NH₄OH to 980 g. Zn(NO₃)₂·6H₂O, 123 g. Cd(NO₃)₂·4H₂O, and 81 g. HgCl₂ in 3 l. water; 305 ml. addnl. 28.5% NH₄OH then was added to give a mixture with pH 7.1-7.2. The precipitate as a black powder. Binders such as NH₄H₂PO₄, H₃BO₃, or Na silicate in 1-2% concentration are useful in preventing disintegration of the catalysts.

CA 2157528	C	20050510	CA 1994-2157878	19940314
CA 2157878	A1	19940329		19940314
CA 2157878	A	20050301	AU 1994-62134	19940314
AU 9462134	B2	19940111	BR 1994-6201	19940314
AU 691487	A	19980521	EP 1994-909204	19940314
BR 9406201	A1	19951212		19940314
EP 690833	B1	19960110		19940314
EP 690833	B1	19980520		19940314
R: RE, DE, ES, FR, GB, IE, IT, LU, NL, PT				
CN 1119431	A	19960327	CN 1994-191525	19940314
CN 1057750	B	2001025		19940314
CN 1119432	A	19960327	CN 1994-191526	19940314
CN 1044227	B	1990721	JP 1994-520764	19940314
JP 08508029	T	19960827	ES 1994-909203	19940314
ES 2115940	T3	19980701	ES 1994-909204	19940314
ES 2116586	T3	19980716	RU 1995-118158	19940315
RU 2116288	C1	19980727	RU 1994-1818	19940315
ZA 9401818	A	19940926	ZA 1994-1826	19940316
ZA 9401826	A	19940926	IN 1994-DE297	19940516
IN 188326	A1	20020907	IN 1994-DE298	19950906
IN 187446	A1	20020427	US 1995-522241	A 19930324
US 5763704	A	19980609	GB 1993-6072	A 19930324
PRIORITY APPLN. INFO.:			GB 1993-6089	W 19940314
			WO 1994-GB498	

Entered STN: 21 Dec 1994
 A process of the production of CH₂F₂ comprises contacting CH₂Cl₂ with HF in the presence of a fluorination catalyst comprising zinc or a compound of zinc and a metal oxide, fluoride or oxyfluoride. Passing CH₂Cl₂, HF, and nitrogen (HF/CH₂Cl₂ mol ratio 27.1) over a zinc/chromium mixed oxide catalyst at 250° gave 92% CH₂F₂.

L73 ANSWER 22 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1947:11901 HCAPLUS

DOCUMENT NUMBER: 41:11901

ORIGINAL REFERENCE NO.: 41:2428f-1

TITLE: Vinyl esters

PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 581501	---	19461015	GB	---
ED	AB	Entered STN: 22 Apr 2001	Vinyl esters of carboxylic acids may be prepared by passing a mixture of C ₂ H ₂ (1) and vaporized acid over a mixed-oxide catalyst, e.g., Zn-Cd or Zn-Cd-Hg chromite. The chief advantages of the process are selectivity in the formation of vinyl esters and long catalyst life. Into a reactor tube charged with 25 ml. Zn-Cd-Hg chromite catalyst, maintained at 215° and flushed with N ₂ , was passed I at the rate of 10.7 g. per hr. mixed with HOAc (II) vapor at the rate of 8.1 g. per hr. (molar ratio 3:1) with a space velocity of 500 ml. gas per ml. catalyst per hr. and a contact time of 5 sec. From 106.8 g. II was obtained 125.6 g. crude product, which on distillation gave 95.3 g. vinyl acetate and 23.7 g. recovered II suitable for recycling. No MeCH(OAc) ₂ was isolated. Vinyl butyrate and vinyl diethylacetate were prepared by similar reactions. A typical catalyst was prepared by adding 2 l. of an aqueous	

Search History

L1 (1)SEA ABB-ON PIU-ON 12018-19-8/RN
L2 (562)SEA ABB-ON PIU-ON L1
L3 (48)SEA ABB-ON PIU-ON AMOS T7/AU
L4 (3927)SEA ABB-ON PIU-ON RAO V7/AU
L5 (82)SEA ABB-ON PIU-ON SIEVERT A7/AU
L6 (75)SEA ABB-ON PIU-ON SUBRAMONEY S7/AU
L7 (3)SEA ABB-ON PIU-ON (L3 OR L4 OR L5 OR L6) AND L2

FILE 'WPIX' ENTERED AT 09:37:43 ON 09 FEB 2007
ACT LA0628WX1AU/A

L8 (1)SEA ABB-ON PIU-ON 12018-19-8/RN
L9 (SEL PIU-ON L8 1- NAME : 7 TERMS
L10 (30)SEA ABB-ON PIU-ON L9
L11 (30)SEA ABB-ON PIU-ON L10 OR L8
L12 (5)SEA ABB-ON PIU-ON AMOS T7/AU
L13 (471)SEA ABB-ON PIU-ON RAO V7/AU
L14 (84)SEA ABB-ON PIU-ON SIEVERT A7/AU
L15 (18)SEA ABB-ON PIU-ON SUBRAMONEY S7/AU
L16 (2)SEA ABB-ON PIU-ON (L12 OR L13 OR L14 OR L15) AND L11

FILE 'HCAPLUS' ENTERED AT 09:37:47 ON 09 FEB 2007
ACT LA0628HC1A/A

L17 (1)SEA ABB-ON PIU-ON 12018-19-8/RN
L18 (117)SEA ABB-ON PIU-ON L17(L)CAT/RL
L19 (562)SEA ABB-ON PIU-ON L17
L20 (112)SEA ABB-ON PIU-ON L19(L)PREP/RL
L21 (1)SEA ABB-ON PIU-ON HYDROGEN FLUORIDE/CN
L22 (208)SEA ABB-ON PIU-ON 7664-39-3/CRN
L23 (42332)SEA ABB-ON PIU-ON L21
L24 (800)SEA ABB-ON PIU-ON L22
L25 (1)SEA ABB-ON PIU-ON L18 AND L23
L26 (2)SEA ABB-ON PIU-ON L20 AND L23
L27 (4)SEA ABB-ON PIU-ON (L25 OR L26)
L28 (0)SEA ABB-ON PIU-ON ((L18 OR L20)) AND L24
L29 (191)SEA ABB-ON PIU-ON L19 AND CATAL2/OBI
L30 (4)SEA ABB-ON PIU-ON L29 AND L23
L31 (0)SEA ABB-ON PIU-ON L29 AND L24
L32 (4)SEA ABB-ON PIU-ON (L27 OR L30)
L33 (1016)SEA ABB-ON PIU-ON FLUORINATION CATALYSTS/CT
L34 (3)SEA ABB-ON PIU-ON L18 AND L33
L35 (1)SEA ABB-ON PIU-ON L20 AND L33
L36 (3)SEA ABB-ON PIU-ON (L34 OR L35)
L37 (4)SEA ABB-ON PIU-ON (L27 OR L28 OR L32 OR L31 OR L36)

FILE 'HCAPLUS' ENTERED AT 09:39:14 ON 09 FEB 2007
ACT LA0628HC4A/A

L38 (48)SEA ABB-ON PIU-ON (CR (L) ZN (L) O)/ELS (L) 3/ELC.SUB
L39 (366)SEA ABB-ON PIU-ON (CR (L) O)/ELS (L) 2/ELC.SUB
L40 (775)SEA ABB-ON PIU-ON L38
L41 (44874)SEA ABB-ON PIU-ON L39
L42 (171)SEA ABB-ON PIU-ON L40 AND L41
L43 (141)SEA ABB-ON PIU-ON L40(L)PREP/RL
L44 (248)SEA ABB-ON PIU-ON L40(L)CATA?OBI

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L45 (59)SEA ABB-ON PIU-ON L44 AND L41
L46 (187)SEA ABB-ON PIU-ON L40(L)CAT/RL
L47 (45)SEA ABB-ON PIU-ON L46 AND L41
L48 (1)SEA ABB-ON PIU-ON HYDROGEN FLUORIDE/CN
L49 (42332)SEA ABB-ON PIU-ON L48
L50 (4)SEA ABB-ON PIU-ON L47 AND L49
L51 (6)SEA ABB-ON PIU-ON L46 AND L49
L52 (7)SEA ABB-ON PIU-ON L44 AND L49
L53 (6)SEA ABB-ON PIU-ON (L42 OR L43) AND L49
L54 (4236)SEA ABB-ON PIU-ON HALOGENATION CATALYSTS+OLD,NT/CT OR FLUORINATION CATALYSTS+OLD,NT/CT
L55 (7)SEA ABB-ON PIU-ON L40 AND L54
L56 (7)SEA ABB-ON PIU-ON (L42 OR L43 OR L44 OR L45 OR L46 OR L47) AND L54
L57 (8)SEA ABB-ON PIU-ON (L50 OR L51 OR L52 OR L53 OR L55 OR L56)

FILE 'WPIX' ENTERED AT 09:37:50 ON 09 FEB 2007
ACT LA0628WX1A/A

L58 (1)SEA ABB-ON PIU-ON 12018-19-8/RN
L59 (1)SEA ABB-ON PIU-ON HYDROGEN FLUORIDE/CN
L60 (SEL PIU-ON L58 1- NAME : 7 TERMS
L61 (30)SEA ABB-ON PIU-ON L60
L62 (30)SEA ABB-ON PIU-ON L61 OR L58
L63 (SEL PIU-ON L59 1- NAME : 14 TERMS
L64 (14552)SEA ABB-ON PIU-ON L63
L65 (14553)SEA ABB-ON PIU-ON L64 OR L59
L66 (21)SEA ABB-ON PIU-ON L62 AND CATAL2?BI,ABEX
L67 (3)SEA ABB-ON PIU-ON L62 AND L65
L68 (20)SEA ABB-ON PIU-ON L66 AND (PY<=2003 OR AY<=2003 OR PRY<=2003)

FILE 'HCAPLUS' ENTERED AT 09:39:14 ON 09 FEB 2007
D QUE L7

FILE 'WPIX' ENTERED AT 09:39:27 ON 09 FEB 2007
D QUE L16

FILE 'WPIX, HCAPLUS' ENTERED AT 09:39:45 ON 09 FEB 2007
3 DUP REM L16 L7 (2 DUPLICATES REMOVED)

FILE 'HCAPLUS' ENTERED AT 09:40:26 ON 09 FEB 2007
D QUE L37
D QUE L57

FILE 'WPIX' ENTERED AT 09:40:44 ON 09 FEB 2007
D QUE L69

L71 (18)SEA ABB-ON PIU-ON L69 NOT L16

FILE 'HCAPLUS' ENTERED AT 09:41:21 ON 09 FEB 2007
5 SEA ABB-ON PIU-ON (L37 OR L57) NOT L7

FILE 'WPIX, HCAPLUS' ENTERED AT 09:41:50 ON 09 FEB 2007
22 DUP REM L71 L72 (1 DUPLICATE REMOVED)

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